

Title (en)  
IMPROVED ENZYME ELECTRODES.

Title (de)  
VERBESSERTE ENZYMELEKTRODEN.

Title (fr)  
ELECTRODES ENZYMATIQUES AMELIOREES.

Publication  
**EP 0639268 A4 19950412 (EN)**

Application  
**EP 93908458 A 19930319**

Priority  
• US 9302588 W 19930319  
• US 88076092 A 19920508

Abstract (en)  
[origin: US5264104A] An improved enzyme electrode includes a three-dimensional redox polymer network having redox enzymes bound thereto, and also having a protein excluding polymeric coating.

IPC 1-7  
**G01N 27/26**

IPC 8 full level  
**C12Q 1/00** (2006.01); **G01N 27/327** (2006.01)

CPC (source: EP US)  
**C12Q 1/002** (2013.01 - EP US); **C12Q 1/004** (2013.01 - EP US); **Y10S 435/817** (2013.01 - EP US)

Citation (search report)

- [Y] US 3379707 A 19680423 - LUND RICHARD B, et al
- [A] US 4894253 A 19900116 - HEINEMAN WILLIAM R [US], et al
- [PX] WO 9212254 A1 19920723 - UNIV TEXAS [US]
- [Y] DATABASE WPI Section Ch Week 8907, Derwent World Patents Index; Class B04, AN 89-049890
- [X] B. A. GREGG AND A. HELLER: "Redox polymer films containing enzymes. 1. A redox-conducting epoxy cement: synthesis, characterization, and electrocatalytic oxidation of hydroquinone.", THE JOURNAL OF PHYSICAL CHEMISTRY, vol. 95, no. 15, 25 July 1991 (1991-07-25), pages 5970 - 5975
- [X] B. A. GREGG AND A. HELLER: "Redox polymer films containing enzymes. 2. Glucose oxidase containing enzyme electrodes.", THE JOURNAL OF PHYSICAL CHEMISTRY, vol. 95, no. 15, 25 July 1991 (1991-07-25), pages 5975 - 5980, XP000651757, DOI: doi:10.1021/j100168a047
- [X] B. A. GREGG AND A. HELLER: "Cross-linked redox gels containing glucose oxidase for amperometric biosensor applications.", ANALYTICAL CHEMISTRY, vol. 62, no. 3, 1 February 1990 (1990-02-01), COLUMBUS US, pages 258 - 263
- [PX] L. YE ET AL: "High current density "wired" quinoprotein glucose dehydrogenase electrode.", ANALYTICAL CHEMISTRY, vol. 65, no. 3, 1 February 1993 (1993-02-01), COLUMBUS US, pages 238 - 241, XP002485741, DOI: doi:10.1021/ac00051a008
- [PX] M. VREEKE ET AL: "Hydrogen peroxide and beta-nicotinamide adenine dinucleotide sensing amperometric electrodes based on electrical connection of horseradish peroxidase redox centers to electrodes through a three-dimensional electron relaying polymer network.", ANALYTICAL CHEMISTRY, vol. 64, no. 24, 15 December 1992 (1992-12-15), COLUMBUS US, pages 3084 - 3090, XP000857437, DOI: doi:10.1021/ac00048a004
- See references of WO 9323744A1

Designated contracting state (EPC)  
DE DK FR GB IT

DOCDB simple family (publication)  
**US 5264104 A 19931123**; AU 3927493 A 19931213; EP 0639268 A1 19950222; EP 0639268 A4 19950412; JP H07506674 A 19950720; WO 9323744 A1 19931125

DOCDB simple family (application)  
**US 88076092 A 19920508**; AU 3927493 A 19930319; EP 93908458 A 19930319; JP 52019193 A 19930319; US 9302588 W 19930319